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POPOVICH, WILES & O'CONNELL, PA 650 THIRD AVENUE SOUTH SUITE 600 MINNEAPOLIS, MN 55402			EXAMINER	
			HOEKSTRA, JEFFREY GERBEN	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/632,145

Filing Date: July 31, 2003

Appellant(s): SEGNER ET AL.

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Patrick J. O'Connell For Appellant

**EXAMINER'S ANSWER** 

This is in response to the appeal brief filed 08/20/2007 appealing from the Office action mailed 03/16/2007.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

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6,019,736 Avellanet et al. 2-2000

5,749,837 Palermo et al. 5-1998

#### (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

#### Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 24, 30, 33-35, 38-40, and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Avellanet et al (US 6,019,736).
- 3. Avellanet et al discloses a guidewire (60, 70, 85, 100) (as best seen in Figures 10-12), comprising:
- an elongate, flexible core (61, 71, 86) having a proximal region, a distal region, a distal end, wherein the distal region has a tapered portion (63, 73, 87) extending to the distal end of the guidewire (as best seen in Figures 10 and 11);
- a single coil (89, 116) disposed on at least a portion of the tapered portion of the distal region of said core (column 8 lines 39-61), said coil comprising 3 to 24 wire strands (column 4 lines 12-19 and column 8 line 39 column 9 line 10) helically wrapped parallel to one another forming a stranded tubular structure having an a

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longitudinal central axis and an interior, wherein an angle between the wire strands and the longitudinal axis is from 10 and 45 degrees (as best seen in Figure 11); and

- a polymer tie layer (120) disposed on at least a portion of the wire strands wherein said tie layer provides the only attachment between the wire strands and the core (column 9 lines 4-39).
- 4. For claims 30, 33-35, and 38-40, Avellanet et al discloses a guidewire (60, 70, 85, 100) (as best seen in Figures 10-12), comprising: a guidewire with an outer diameter of about 0.33 mm or 0.013 inches (column 8 lines 39-61) and a length range of 125 to 300 cm (column 1 lines 23-52), a coil with an outer diameter of about 0.25 mm or 0.0098 inches (column 3 lines 47-52) and a length of about 25 cm (column 8 lines 39-61), and a tapered core region being between 5 to 80 cm (column 8 lines 39-61).

#### Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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- 7. Claims 1, 2, 7-9, 12-14, 17-19, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avellanet et al in view of Palermo et al (US 5,749,837).
- 8. For claims 1, 2, 8, and 25, Avellanet et al discloses the claimed invention as set forth above except for expressly disclosing: (a) a lubricious polymer layer disposed on a polymeric tie layer disposed along the entire length of the guidewire's distal end and (b) attaching the coil comprised of a plurality of wire strands to the core by adhesive or solder. Palermo et al teaches a guidewire (200), comprising: an elongated flexible core (202), a distally disposed coil (112) fixedly attached to said core with a polymer adhesive (136) and solder (128), a polymeric tie layer (204) disposed along the entire distal length of said guidewire, and a lubricious polymer layer or coating (206) disposed on said polymeric tie layer (columns 10-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the guidewire as taught by Avellanet et al, with the lubricious polymer layer and fixed attachments as taught by Palermo et al for the purpose of configuring the mechanical properties of a guidewire for increased patient safety whilst traversing tortuous vasculature with a guidewire during advanced intravascular surgical procedures.
- 9. For claim 7, Avellanet et al discloses a guidewire (60, 70, 85, 100) (as best seen in Figures 10-12), comprising: a polymer tie layer (120) disposed on at least a portion of

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the wire strands wherein said tie layer provides the only attachment between the wire strands and the core (column 9 lines 4-39).

10. For claims 12-14 and 17-19, Avellanet et al discloses a guidewire (60, 70, 85, 100) (as best seen in Figures 10-12), comprising: a guidewire with an outer diameter of about 0.33 mm or 0.013 inches (column 8 lines 39-61) and a length range of 125 to 300 cm (column 1 lines 23-52), a coil with an outer diameter of about 0.25 mm or 0.0098 inches (column 3 lines 47-52) and a length of about 25 cm (column 8 lines 39-61), and a tapered core region being between 5 to 80 cm (column 8 lines 39-61).

#### (10) Response to Argument

- 11. Applicant's arguments filed 08/20/2007, see Appeal Brief pages 6-8, have been fully considered but they are not persuasive.
- 12. Applicant argues the 102(b) anticipatory rejections of claims 24, 30, 33-35, 38-40, and 48 under Avellanet et al and the 103(a) obviousness-type rejections of claims 1, 2, 7-9, 12-14, 17-19, and 25 under Avellanet et al in view of Palermo et al.
- 13. Applicant specifically argues for both cases, that Avellanet et al does not disclose, teach, or fairly suggest the claimed range for "the angle between the wire strands and the longitudinal central axis is from 10 to 45 degrees" and Figure 11 of Avellanet shows an angle between the coil 116 and the core 100 that falls outside of this range.
- 14. The Examiner disagrees, maintains the rejection as reiterated above, and notes the following in response:

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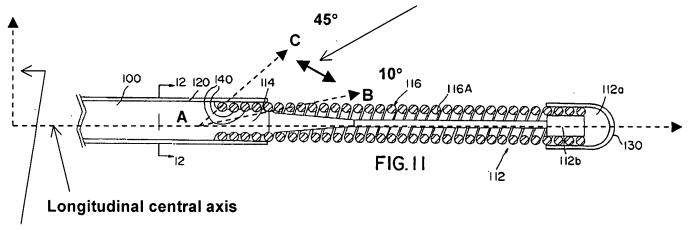
15. Claims 24 and 48 merely state in part "wherein the angle between the wire strands and the longitudinal central axis is from 10 to 45 degrees" which is met by Avellanet in the following way:

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- 16. As broadly as claimed, Avellanet shows an angle between the wire strands (column 4 lines 12-19 and column 8 line 39 column 9 line 10) and the longitudinal central axis defined along the coil (116) length the being from 10 to 45 degrees (as best seen in Figure 11). The claimed "angle" is not structurally limited or defined in the claims to preclude a broad interpretation of the Avellanet disclosure and Figures. As such, the Examiner's interpretation of the claimed "angle between the longitudinal central axis and the wire strands" being from 10 to 45 degrees with regards to Figure 11 is reproduced below for emphasis and clarity.
- 17. At first glance, one may assume the angle between the longitudinal central axis and the wire strands is on the order of 70-90 degrees; however as illustrated below, one may reasonably interpret that any point along the longitudinal central axis be used as a basis for forming the angle between the axis and the wire strands. For example, the angle formed between point A on the axis and point B through the wire strands may be 10 degrees and likewise, the angle formed between point A on the axis and point C through the wire strands may be 45 degrees.
- 18. Therefore Avellanet shows and teaches the claimed limitation "wherein the angle between the wire strands and the longitudinal central axis is from 10 to 45 degrees".

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### Angle between the longitudinal central axis and the wire strands is 10 to 45 degrees



Axis perpendicular to longitudinal central axis

## (11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/J.H./ Jeffrey G. Hoekstra

Examiner, Art Unit 3736

Conferees:

Max Hindenburg

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Marc Jimene